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(54) **LATENCY NEGOTIATION IN A  
HETEROGENEOUS NETWORK OF  
SYNCHRONIZED SPEAKERS**

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#### ABSTRACT

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A method is provided that can be performed by an audio source for negotiating latency in an audio network. The audio source receives information regarding an audio processing latency associated with each of a set of two or more audio output devices connected to the audio network. The audio source determines, based at least on the received information, a maximum delay for outputting audio samples streamed by the audio source from the audio output devices in the set. The audio source determines, based on the maximum delay, timing for outputting the audio samples from the audio output devices in the set. The audio source then communicates the determined timing to the set of audio output devices for processing the audio samples in accordance with the timing.

$x = \text{select}(\max(\text{HSS3}, \text{HSS4}, \text{HSS5}), \max(\text{BAX3}, \text{BAX4}, \text{BAX5})) + \text{wifi distribution latency}$

$y = \max(a + \text{BT distribution latency})$

$\text{latency} = \max(x, y)$

